

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method of inspecting a multilayer gas sensing device which comprises a sensor cell including a solid electrolyte plate, a measured gas side electrode placed on a surface of said solid electrolyte plate to be exposed to a measured gas and a reference electrode placed on a surface of said solid electrolyte plate to be exposed to a reference gas, ~~with said measured gas side electrode being coated with a porous diffusion resistance layer in a stacked condition and said diffusion resistance layer being further coated with a dense protective layer in a stacked condition~~, said method comprising the steps of:

immersing said multilayer gas sensing device in a conductive inspection solution; placing said reference electrode into non-contact condition with said conductive inspection solution;

applying a voltage between said conductive inspection solution and said reference electrode to measure a current flowing between said conductive inspection solution and said reference electrode; and

making a decision as to whether or not insulation is kept between said conductive inspection solution and said reference electrode.

2. (Currently amended) The method according to claim 1, wherein, ~~for in the step of applying said voltage between said conductive inspection solution and said reference electrode, said voltage is applied between a reference side external terminal, which is electrically connected to said reference electrode and formed in an exposed state in the exterior of said multilayer gas sensing device and which does not come into contact with said conductive inspection solution, and said conductive inspection solution, the reference side external terminal being electrically connected to said~~

KAWASHIMA
Appl. No. 10/730,884
October 11, 2005

reference electrode, formed in an exposed state outside said multilayer gas sensing device, and arranged to be separated from said conductive inspection solution.

3. (Original) The method according to claim 1, wherein said voltage to be applied between said conductive inspection solution and said reference electrode is in a range from 250V to 1000V.

4. (Original) The method according to claim 1, wherein, when a current flowing between said conductive inspection solution and said reference electrode in response to the voltage application therebetween is below 5 μ A, said multilayer gas sensing device is decided to be a non-defective product.

5. (Original) The method according to claim 1, wherein said conductive inspection solution is an ethanol.